



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,599	03/25/2004	Huayan Amy Wang	SBL01611	7239
22917	7590	09/01/2009		
MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196			EXAMINER DAVIS, ZACHARY A	
			ART UNIT 2437	PAPER NUMBER
			NOTIFICATION DATE 09/01/2009	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.US@motorola.com

Office Action Summary	Application No. 10/809,599	Applicant(s) WANG, HUAYAN AMY	
	Examiner Zachary A. Davis	Art Unit 2437	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-17,19-23,25-35,40 and 41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-17,19-23,25-35,40 and 41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 23 June 2009 has been entered.
2. By the above submission, Claims 1 and 19 have been amended. New Claims 40 and 41 have been added. No claims have been canceled. Claims 1, 2, 4-17, 19-23, 25-35, 40, and 41 are currently pending in the present application.

Response to Amendment

3. The present amendment is not fully compliant with the requirements of 37 CFR 1.121. In particular, Claims 1, 2, 15, and 19 appear to have been amended without showing all changes made relative to the previous version as required by 37 CFR 1.121(c)(2). More specifically, in Claim 1, line 7, the text "maintaining a state table on said computer" appears to have been replaced and now reads "said state table on said computer". In Claim 2, line 2, it appears that "portion" has been deleted after "header

Art Unit: 2437

message". In Claim 15, line 2, it appears that "SubType" was replaced by "Type". In Claim 19, line 7, it appears that the numeral "4" has been inserted at the end of the line. In each of the above cases, it appears that these changes were likely to be unintentional, and therefore, it has been assumed that these unmarked amendments were not intended but were due to clerical errors. Therefore, these portions of the claims have been treated as though they were unchanged from the previous versions of the claims (where amendments are clearly marked in independent Claims 1 and 19, however, these amendments have been considered and entered). Additionally, due to the unmarked amendments, Claims 2 and 15 appear to have incorrect status identifiers as set forth in 37 CFR 1.121(c). Specifically, it appears that Claims 2 and 15 should have been labeled with the status identifier (Currently amended) instead of (Original) or (Previously presented), respectively; however, if the amendments were unintentional, as appears to be the case, then the current status identifiers would appear to be correct.

4. However, because the present response appears to be a *bona fide* attempt to advance the prosecution of the present application, the amendments have been considered as though it were fully in compliance with the requirements of 37 CFR 1.121, and, as noted above, the unmarked amendments have been assumed to have been unintentional and those portions of the claims have been treated as though they were unchanged from the previous versions of the claims. In the next response, Applicant is required either to clearly state on the record that the amendments were unintentional and reinstate the previous claim language without markings if the amendments were unintentional or to provide amendments in the next response showing the changes

Art Unit: 2437

made relative to the previous version as required by 37 CFR 1.121 if the amendments were intended to be made.

Response to Arguments

5. Applicant's arguments filed 23 June 2009 have been fully considered but they are not persuasive.

Regarding the rejection of Claims 1, 2, 4-17, 19-23, and 25-35 under 35 U.S.C. 103(a) as unpatentable over Macaulay, US Patent Application Publication 2003/0135762, in view of Hrastar, US Patent 7042852, and with specific reference to independent Claims 1 and 19, Applicant asserts that "nothing in the art of record teaches or suggests" the new limitation in the independent claims of maintaining a state transition history for each of the mobile units (page 9 of the present response). Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. In particular, Applicant provides no evidence or explanation in support of this assertion. Although the relevant portions were not previously cited, the Examiner submits that the combination of Macaulay and Hrastar does suggest this limitation. In particular, Macaulay discloses logging detailed data regarding the network, i.e. maintaining a history of the various mobile units in the network (see Macaulay, paragraphs 0043-0044, 0091, where detailed network analysis is logged). In

Art Unit: 2437

combination with the disclosures in Hrastar of specific types of state data of the mobile units (Hrastar, column 29, lines 5-17, where state includes authentication status, address, etc), this suggests keeping a history of the states of the mobile units as claimed.

Regarding new Claims 40 and 41, Applicant asserts that none of the references disclose or suggest a power management mode as a further parameter (pages 8-9 of the present response). Again, Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references; Applicant does not provide any explanation or evidence in support of this assertion. The Examiner submits that the combination of Macaulay and Hrastar does disclose a power management mode. In particular, both Macaulay and Hrastar refer frequently to the various IEEE 802.11 standards (see Macaulay abstract and throughout; see Hrastar, for example, column 3, line 57-column 4, line 17, where the 802.11 standards are incorporated by reference). Power management mode is known to be one of the parameters that is defined by the 802.11 standard (see section 11.2 of the 802.11 standard, for example), and therefore it is included in the state data of the network (Hrastar, column 29, lines 5-17) and the detailed analysis that is logged by Macaulay (Macaulay, paragraphs 0043, 0044, 0091; see also paragraph 0107).

Therefore, for the reasons detailed above, the Examiner maintains the rejection as set forth below.

Claim Objections

6. Claims 8 and 26 are objected to because of the following informalities:

Claims 8 and 26 each recite “a second WEP value”; it appears that, for consistency with the first WEP flag value earlier in the claims, this should read “a second WEP flag value”.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1, 2, 4-17, 19-23, 25-35, 40, and 41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites “and maintaining a state transition history for each of said mobile units” in lines 10-11. It is not clear what the subject of this limitation is and/or what the limitation is intended to be coordinated with. This renders the claim indefinite.

Claim 19 similarly recites “and maintaining a state transition history for each of said mobile units” in lines 11-12. It is not clear what the subject of this limitation is and/or what the limitation is intended to be coordinated with. This renders the claim

Art Unit: 2437

indefinite. It is further noted that the latter portion of this limitation may have been intended to read "for each of said access points", noting that the state information in this claim is for the access points and not the mobile units (see lines 8-9 of the claim).

Claims not specifically referred to above are rejected due to their dependence on a rejected base claim.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 2, 4-17, 19-23, 25-35, 40, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macaulay, US Patent Application Publication 2003/0135762, in view of Hrastar, US Patent 7042852.

In reference to Claim 1, Macaulay discloses a method for detecting unauthorized attempts to access a wireless data communication system, where the method includes forwarding one or more packets received by an access point to a computer that compares the format of the packets to a format specified by a protocol (see paragraphs 0045-0046 and 0095-0107; note also paragraphs 0032-0035 and 0042 where the wireless network is monitored), and signaling an alert if the packets deviate from the protocol specified format (see paragraphs 0049-0050). Macaulay further discloses

Art Unit: 2437

maintaining a history for the mobile units (see paragraphs 0043-0044, 0091, where detailed network analysis is logged). However, Macaulay does not explicitly disclose maintaining a state table storing state information for the mobile units, where the state information is also used to signal an alert.

Hrastar discloses a method in which a state table storing state information for mobile units is stored (column 28, line 64-column 29, line 4, where the data store includes a state data store and a station database; column 29, lines 5-17), where the state information includes at least a MAC address parameter, an authentication status parameter, and a further parameter unrelated to the MAC address parameter and authentication status parameter (column 29, lines 5-17, where the station database includes information including a device address, communications state, and other parameters, where the address is a MAC address, column 26, lines 41-46, the “state” corresponds to the claimed authentication status, and the timestamps and byte counts, for example, correspond to the claimed unrelated parameters), and an alert is signaled if packets deviate from the stored state information (column 30, lines 35-43). Therefore, it would have been obvious to one of ordinary skill in the art to modify the method of Macaulay to include state information, in order to enhance network security (Hrastar, column 5, lines 21-22). Further, in combination with the history/logging disclosed by Macaulay (Macaulay, paragraphs 0043-0044 and 0091), the inclusion of state information (Hrastar, column 28, line 64-column 29, line 17) would also suggest maintaining a history of the states of the mobile units, and therefore, it also would have been obvious to one of ordinary skill in the art to modify the method of Macaulay to

Art Unit: 2437

include a state history of the mobile units, in order to enhance network security (Hrastar, column 5, lines 21-22).

In reference to Claim 2, Macaulay and Hrastar further disclose a header message portion and comparing the format of the header portion to the protocol specified format (see Macaulay, the table following paragraph 0094).

In reference to Claim 4, Macaulay and Hrastar further disclose comparing format of a frame control field (see Macaulay, the table following paragraph 0094).

In reference to Claims 5 and 6, Macaulay and Hrastar further disclose Management and Control frames (see Macaulay, the table following paragraph 0094; see also paragraph 0099).

In reference to Claims 7 and 8, Macaulay and Hrastar further disclose comparing a WEP flag value (see Macaulay, paragraph 0104).

In reference to Claim 9, Macaulay and Hrastar further disclose a protocol version (see, for example, Macaulay, paragraph 0083).

In reference to Claims 10 and 11, Macaulay and Hrastar further disclose source MAC addresses that are multicast and broadcast addresses (see Macaulay, paragraphs 0124, 0127).

In reference to Claims 12-15, 17, and 40, Macaulay and Hrastar further disclose monitoring for a possible denial of service attack (Macaulay, paragraph 0106) and that the packets may contain unsupported values and lengths (Macaulay, paragraph 0107, for example, where values in the 802.11 protocol that could be manipulated include Power Management, More Data, Type, and SubType fields) and that the state table

Art Unit: 2437

could include a power management mode (Macaulay, paragraph 0107, where the 802.11 protocol includes Power Management; paragraph 0091, where detailed network analysis is logged; Hrastar, column 29, lines 5-17, regarding the state table itself; see also, column 3, line 57-column 4, line 17, where the 802.11 standards are incorporated by reference, and section 11.2 of the 802.11 standard).

In reference to Claim 16, Macaulay and Hrastar further disclose detecting a spoofed MAC address (Macaulay, paragraphs 0095, 0101).

In reference to Claim 19, Macaulay discloses a method for detecting unauthorized attempts to access a wireless data communication system, where the method includes forwarding one or more packets received by a mobile unit to a computer that compares the format of the packets to a format specified by a protocol (see paragraphs 0045-0046 and 0095-0107; note also paragraphs 0032-0035 and 0042 where the wireless network is monitored), and signaling an alert if the packets deviate from the protocol specified format (see paragraphs 0049-0050). Macaulay further discloses maintaining a history for the mobile units (see paragraphs 0043-0044, 0091, where detailed network analysis is logged). However, Macaulay does not explicitly disclose maintaining a state table storing state information for the mobile units, where the state information is also used to signal an alert.

Hrastar discloses a method in which a state table storing state information for mobile units is stored (column 28, line 64-column 29, line 4, where the data store includes a state data store and a station database; column 29, lines 12-17), where the

Art Unit: 2437

state information includes at least a MAC address parameter, an authentication status parameter, and a further parameter unrelated to the MAC address parameter and authentication status parameter (column 29, lines 5-17, where the station database includes information including a device address, communications state, and other parameters, where the address is a MAC address, column 26, lines 41-46, the “state” corresponds to the claimed authentication status, and the timestamps and byte counts, for example, correspond to the claimed unrelated parameters), and an alert is signaled if packets deviate from the stored state information (column 30, lines 35-43). Therefore, it would have been obvious to one of ordinary skill in the art to modify the method of Macaulay to include state information, in order to enhance network security (Hrastar, column 5, lines 21-22). Further, in combination with the history/logging disclosed by Macaulay (Macaulay, paragraphs 0043-0044 and 0091), the inclusion of state information (Hrastar, column 28, line 64-column 29, line 17) would also suggest maintaining a history of the states of the mobile units, and therefore, it also would have been obvious to one of ordinary skill in the art to modify the method of Macaulay to include a state history of the mobile units, in order to enhance network security (Hrastar, column 5, lines 21-22).

Claims 20-23, 25-35, and 41 recite limitations corresponding to and similar to those recited in Claims 2, 4-17, and 40, and are rejected by a similar rationale.

Conclusion

Art Unit: 2437

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A. Davis whose telephone number is (571)272-3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Zachary A Davis/
Examiner, Art Unit 2437